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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/787,793	06/12/2001	Atsuchi Yatagai	1752-0143P	9670

2292 7590 03/11/2003

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EXAMINER

NAFF, DAVID M

ART UNIT PAPER NUMBER

1651

DATE MAILED: 03/11/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/87723

Applicant(s)

Yafar: et al

Examiner

H. J. P.

Group Art Unit

1651

—The MAILING DATE of this communication appears on the cover sheet beneath the correspondence address—

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, such period shall, by default, expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).

Status

- ☒ Responsive to communication(s) filed on 11/1 + 11/4/02
- ☒ This action is **FINAL**.
- ☐ Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed** in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 1 1; 453 O.G. 213.

Disposition of Claims

- ☒ Claim(s) 1 - 18 is/are pending in the application.
- Of the above claim(s) 10 - 14 is/are withdrawn from consideration.
- ☐ Claim(s) _____ is/are allowed.
- ☒ Claim(s) 1 - 9 + 15 - 16 is/are rejected.
- ☐ Claim(s) _____ is/are objected to.
- ☐ Claim(s) _____ are subject to restriction or election requirement.

Application Papers

- ☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.
- ☐ The proposed drawing correction, filed on _____ is ☐ approved ☐ disapproved.
- ☐ The drawing(s) filed on _____ is/are objected to by the Examiner.
- ☐ The specification is objected to by the Examiner.
- ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119 (a)-(d)

- ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).
 - ☐ All ☐ Some* ☐ None of the CERTIFIED copies of the priority documents have been received.
 - ☐ received in Application No. (Series Code/Serial Number) _____
 - ☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

*Certified copies not received: _____

Attachment(s)

- ☒ Information Disclosure Statement(s), PTO-1449, Paper No(s). 6047 filed 6/12/07
 - ☐ Interview Summary, PTO-413
 - ☐ Notice of Reference(s) Cited, PTO-892
 - ☐ Notice of Informal Patent Application, PTO-152
 - ☐ Notice of Draftsperson's Patent Drawing Review, PTO-948
 - ☐ Other _____

Office Action Summary

In a response of 11/1/02 to a restriction requirement of 10/1/02, applicants elected Group I claims 1-9 with traverse. The requirement was traversed on the ground that the inventions are closely related and it would not be unduly burdensome to examine all the inventions together.

5 However, due to the differences in the inventions as pointed out in the restriction requirement, examining all the inventions together would be an undue burden. Accordingly, the restriction requirement is adhered to and made final.

Claims 10-14 are withdrawn from further consideration pursuant to 37
10 CFR 1.142(b), as being drawn to a nonelected invention, there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in Paper No. 9 of 11/1/02.

The amendment of 11/1/02 amended claims 1-9, and the amendment of 11/4/02 added new claims 15-18 dependent on claim 1.

15 Claims examined on the merits are 1-9 and 15-18.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

20 (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.
25

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the
30 time any inventions covered therein were made absent any evidence to the

contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential
5 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 1-9 and 15-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kruithof et al or van der Hoek et al or Le Cloirec et al (all listed on form PTO-1449).

The claims are drawn to a denitrifying composition containing
10 particles of calcium carbonate dispersed in sulfur, and to a method of using the composition for denitrifying.

Kruithof et al and van der Hoek et al disclose removing nitrate from water using sulphur/limestone filtration.

Le Cloirec et al disclose using a mixture of sulphur and calcium
15 carbonate for denitrification.

In each of Kruithof et al, van der Hoek et al and Le Cloirec et al an admixture of calcium carbonate (limestone) and sulphur is used. To form this admixture by mixing calcium carbonate particles with sulphur to disperse the particles in sulphur would have been an obvious
20 way of forming the admixture. Mixing other materials with the admixture as in claims 3-5, 8 and 9 would have been obvious to obtain the binding and/or filtration properties of these materials to remove contaminants in water since such material are known for use in treatment of water.

Any inquiry concerning this communication or earlier communications
25 from the examiner should be directed to David M. Naff whose telephone

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number is (703) 308-0520. The examiner can normally be reached on Monday-Thursday and every other Friday from about 8:30 AM to about 6:00 PM.


If attempts to reach the examiner by telephone are unsuccessful, a
5 message can be left on voice mail.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mike Wityshyn, can be reached at telephone number (703) 308-4743.

The fax phone number is (703) 872-9306 before final rejection or
10 (703) 872-9307 after final rejection.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 308-0196.

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DAVID M. NAFF
PRIMARY EXAMINER
ART UNIT 1651

DMN
3/7/03